

## PROJECT DESCRIPTION

## I. GENERAL

This project involves the reconstruction of an existing Hazard Identification Beacon due to anchor bolt failure. The Beacon is located on EB US 50 just west of the Sinepuxent Bay Bridge (Harry W. Kelley Memorial Bridge) in Worcester County. Signing on the H.I.B. and the existing signal structures on the bridge are also to be brought up to current MSHA Standards.

## II. INTERSECTION OPERATION

The signal shall continue to operate as a warning device for the drawbridge. The signal will remain dark until actuated by the drawbridge signal, at which time they will flash yellow.

## III. SPECIAL NOTE

All field wiring to the existing controller cabinets shall be terminated to the appropriate controller cabinet connectors by the Contractor and labeled. All other controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.

## EQUIPMENT LISTS

## A. EQUIPMENT TO BE SUPPLIED BY S.H.A.

ITEM NO.	QUANTITY	DESCRIPTION
9001	1 Set	1 3/4" X 90" Anchor bolts (set of 4).
9002	92 S.F.	Sheet aluminum signs to consist of:
	1 Each	W3-3(2) MOD "DRAWBRIDGE, PREPARE TO STOP, WHEN FLASHING" sign, (120" x 60") mast arm mounted.
	2 Each	W3-3(4) "DRAWBRIDGE, SIGNAL" sign, (84" x 36") mast arm mounted.

EQUIPMENT LISTS  
(CON'T.)

## B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 Each	Maintenance of traffic.
2001	1 C.Y.	Test pit excavation.
8001	3 C.Y.	Furnish and install concrete foundation.
8024	45 L.F.	Furnish and install 2" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
8027	50 L.F.	Furnish and install 3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
8033	1 Each	Furnish and install handhole (frame and cover).
8034	1 Each	Furnish and install ground rod, 3/4" diameter x 10' length.
8044	80 L.F.	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).
8048	1050 L.F.	Furnish and install 1-conductor electrical cable (No. 8 A.W.G.) THHN/THWN.
8049	75 L.F.	Furnish and install stranded bare copper ground wire (No. 6 A.W.G.).
8054	91 S.F.	Install overhead mounted sign.
8058	1 Each	Remove and dispose of existing foundation 12" below grade.
8061	1 Each	Remove and dispose of existing material and equipment. (Existing W3-3 (3) "DRAWBRIDGE, BE PREPARED TO STOP" sign.)
8079	1 Each	Install steel pole and single mast arm.
Neg.	L.S.	Reroute existing I/C cables and repair existing galvanized steel conduit.

PROPOSED  
SIGN

DRAWBRIDGE  
PREPARE TO STOP  
WHEN FLASHING

W3-3(2) MOD  
(120" X 60")

EXISTING  
SIGN

Harry W. Kelley  
Memorial Bridge

EXISTING  
SIGNALS

1,2  
Y  
12'

## PHASE CHART

	1 Y	2 Y
NORMAL OPERATION	DARK	DARK
DRAWBRIDGE OPEN	FL/Y	FL/Y

US 50 IS ASSUMED TO RUN  
IN AN EAST WEST DIRECTION

US 50 W.B.

US 50 E.B.

EXISTING I/C TO  
GOLF COURSE DRIVE

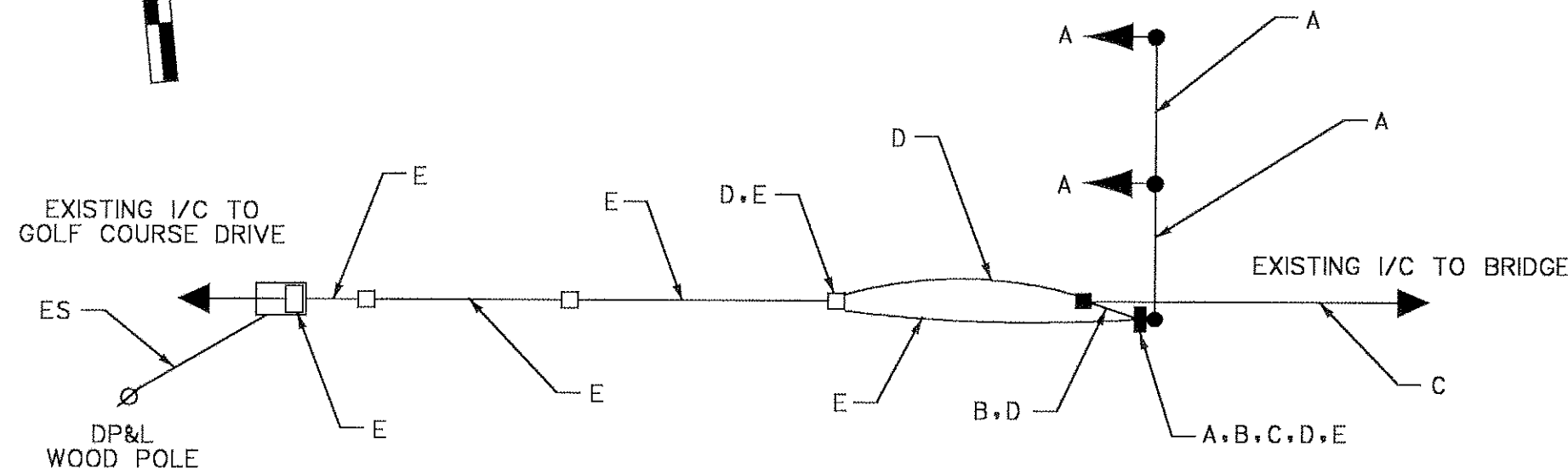
BRIDGE  
JOINT

DP&L  
WOOD POLE

## CONSTRUCTION DETAILS

## WIRING DIAGRAM

- Disconnect and pull back existing I/C cable from pole-mounted cabinet to broken 2" Lb at bridge side wall. Replace 2" Lb and reroute I/C into proposed cabinet. (See Wiring Diagram).
- Install proposed foundation and anchor bolts as shown. Care must be taken as to not disturb the existing 2" galvanized conduit traveling east. (Note: 1-3", 90° polyvinyl chloride (Sch. 80) bend and 1-2", 90° polyvinyl chloride (Sch. 80) bend for electrical service.
- Remove existing steel pole and all attached equipment. Relocate to proposed foundation as shown. Replace existing W3-3 (3) sign with proposed W3-3 (2) MOD sign in same location (See Detail "B"). Cap and abandon existing conduit.
- Install handhole onto existing conduit as shown. Cut existing 2" galvanized conduit, pull back existing interconnect cable from bridge and re-route into cabinet.
- Install 3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).
- Install 2" polyvinyl chloride electrical conduit (Schedule 80) for service. Attach to the existing conduit in handhole Detailed "G".
- Use existing handhole. Pull back existing I/C cable from steel pole and reroute thru proposed conduit to proposed pole as shown. (See Wiring Diagram.)
- Maintain existing conduit with interconnect cable. Existing 2" galvanized conduit for electrical service shall remain. The existing electrical service cable will be replaced as shown on the Wiring Diagram.
- Existing handhole to remain.
- Existing underground electrical service by D.P. & L.
- Existing cabinet to remain. Install new 3-wire electrical cable (No. 8 A.W.G.) from base mounted cabinet to proposed pole mounted cabinet on H.I.B. using existing conduit.



## WIRING KEY

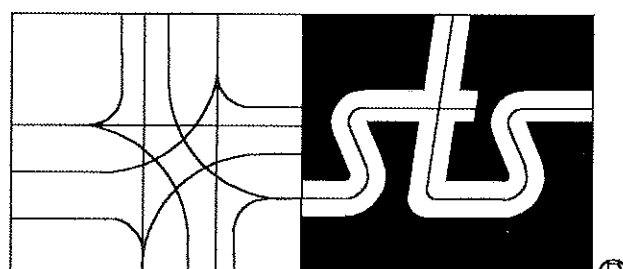
- A - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- C } EXISTING INTERCONNECT CABLE TO D } BE PULLED BACK AND REROUTED
- E - 1- CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.) THHN/THWN.
- ES - EXISTING UNDERGROUND SERVICE TO BE MAINTAINED BY DP&L

NOTE: ALL EXISTING ELECTRICAL CABLE NOT SHOWN IS TO BE MAINTAINED

MARINA

## UTILITY LEGEND

— G —	GAS MAIN
— W —	WATER MAIN
— S —	SEWER MAIN
— E —	ELECTRIC CABLES
— A —	AERIAL CABLES
— T —	TELEPHONE CABLES



STREET TRAFFIC STUDIES, LTD.

Gateway International  
1302 Concourse Drive, Suite 104  
Linthicum, Maryland 21090  
Ph (410) 859-3553  
Fax (410) 859-3579

TASK13.DGN

## REVISIONS

## APPROVALS

ASST. CHIEF TRAFFIC SECTION

ASST. DISTRICT ENGINEER, TRAFFIC

CHIEF TRAFFIC ENGINEERING DESIGN DIVISION

DIRECTOR, TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

HAZARD IDENTIFICATION BEACON

US 50: WEST OF HARRY W. KELLEY MEMORIAL BRIDGE

DRAWN BY: D.A.NIES

CHECK BY: R.R.Z. MAR 5/13/98

DATE: 5-8-98

SCALE: 1" = 20'

COUNTY: WORCESTER

LOG MILE: 23005013.57

F.A.P. NO.

S.H.A. NO. 238-557-250-7309

TS NO.

TS-3799

T.I.M.S. NO.

C-837

SHEET NO.

1 OF 2